



September 5, 2017

Reference No. 030409

Ms. Leslie Blake
Remedial Project Manager
United States Environmental
Protection Agency
Region 5
Ralph Metcalfe Federal Building
77 West Jackson
Chicago, Illinois 60604-3590

Dear Leslie:

Re: Groundwater Sampling Results
Rexnord
2400 Curtiss Street
Downers Grove, Illinois 60515

This letter provides the results of monitoring well sampling that was conducted to update groundwater quality data and provide information which will allow EPA to evaluate Rexnord's well abandonment plan presented in our letter of July 20, 2017. The abandonment and sealing of the monitoring wells is scheduled for the week of September 11. Thus, your prompt review of the data presented herein is greatly appreciated.

Groundwater monitoring was conducted on August 17, 18, and 21, 2017, in accordance with the Ramboll Environ Field Sampling Plan and the Quality Assurance Project Plan. Groundwater samples were collected from the 15 monitoring wells listed in Table 1. Four of the proposed monitoring wells could not be sampled due to Site or well conditions as described in Table 1. Upon review of the locations, depths, and historical data for these wells, we do not believe that they are critical for the evaluation of the proposed well abandonments. Monitoring well locations are shown on Figure 1.

Due to a field mix-up, one monitoring well, MW279I, was accidentally omitted from the sampling event and one well that was not on the sampling list, BD1I, was sampled instead. Therefore, MW279I was sampled on September 5 and we will submit the lab data for that well as soon as it is available, likely by Friday, September 8.

All samples were analyzed by TestAmerica, of North Canton, Ohio, for volatile organic compounds (VOCs), by method 8260B, and 1,4-dioxane by method 8260B SIM.

There were two minor departures from the Sampling Plan:

1. Monitoring wells were purged using a Proactive Hurricane submersible pump instead of a bladder pump. This change was verbally approved by EPA on August 8, 2017.
2. VOC analyses were performed at Test America's N. Canton, Ohio, laboratory instead of Test America's Chicago lab as specified in the Sampling Plan. This change was explained in GHD's letter of August 23, 2017.



Field measurements were collected during well purging to document well stabilization. Table 1 presents the field measurements for each well prior to sample collection.

A summary of the laboratory results for the detected contaminants of concern (COC) is presented in Table 2 and the laboratory reports are provided in Attachment 1. Historical COC data are included in Table 2 for comparison. Review of the data indicates that VOC concentrations from this sampling event were generally lower at most wells. Significant reductions were observed at OV-1I where the tetrachloroethene (PCE) concentration of 5.1 µg/l was well below previous concentrations, which were above 20 µg/l, and trichloroethene (TCE) was not detected at OV1I, whereas previous TCE concentrations ranged from 13 to 37 µg/l. At BD-2D, the PCE concentration of 3.4 µg/l (3.3 µg/l duplicate) was much lower than previous concentrations which ranged from 13 to 20 µg/l.

TCE concentrations at two monitoring wells along the east property boundary, MW276I and OV-5I, were above the MCL with concentrations of 21 µg/l and 40 µg/l, respectively. These concentrations are similar to previously reported concentrations for these wells. None of the bedrock wells exhibited concentrations above MCLs.

1,4-dioxane was detected at two well locations. Both concentrations were barely above the method detection limit of 0.24 µg/l and were reported as estimated values.

The depth to groundwater was measured at each of the sampled wells and groundwater elevations are presented in Table 3. The bedrock water table elevations are consistent with historical elevations, indicating a southerly flow direction.

Thanks again for your prompt attention to Rexnord's request and for accommodating our project schedule. If you have any questions, please do not hesitate to contact us at (651) 639-0913.

Sincerely,

GHD

A handwritten signature in black ink, appearing to read "Ron Frehner".

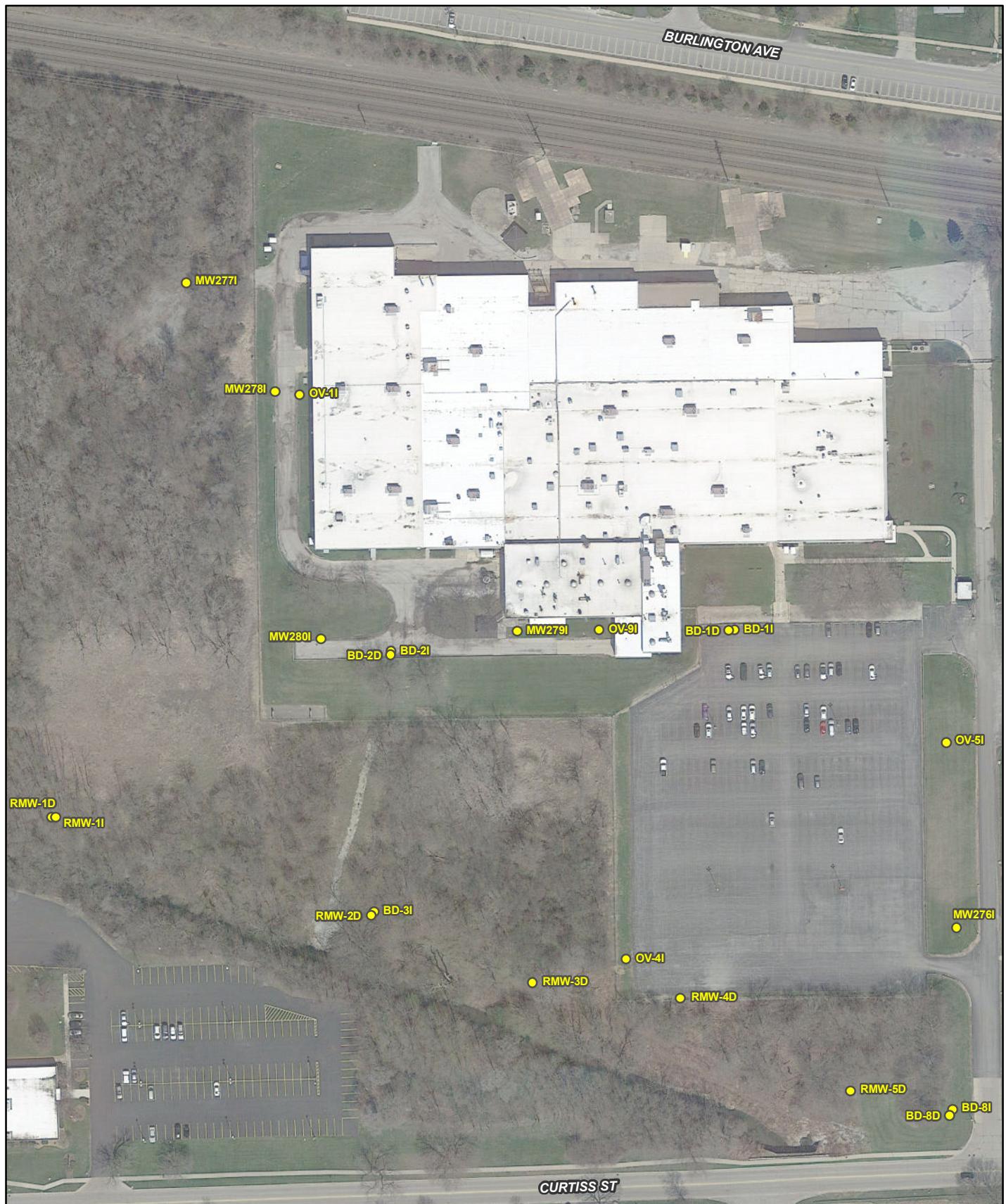
Ron Frehner, P.E.

A handwritten signature in black ink, appearing to read "Charles Ahrens".

RF/sb/4

Encl.

cc: Tom Frost, Rexnord
Mark Bilut, McDermott, Will and Emery
Amy Gahala, USGS



Source: Google 4/7/2017



REXNORD
DOWNERS GROVE, ILLINOIS
GROUNDWATER SAMPLING RESULTS
MONITORING WELL
LOCATIONS

030409-00
Sep 1, 2017

FIGURE 1

Table 1

Page 1 of 2

Monitoring Well Sampling Summary
August 2017
Rexnord
Downers Grove, Illinois

Location	Sample Number	QA/QC	Sample Date	Sample Time	pH	Temperature (°C)	Conductivity (uS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
BD-1I	GW-082117-AJ-15		8/21/2017	9:00	7.19	21.5	1480	5.23	62	336
BD-1I	GW-082117-AJ-16	FD	8/21/2017	9:10	--	--	--	--	--	--
Equip. Blank	GW-081817-AJ-07	EB	8/18/2017	9:30	--	--	--	--	--	--
BD-2I	GW-081817-AJ-08		8/18/2017	9:45	NA	NA	NA	NA	NA	NA
BD-3I	Not Sampled - Covered by downed trees									
BD-8I	GW-081717-JK-02		8/17/2017	12:15	6.90	12.9	1188	1.80	-68	132
OV-1I	GW-081817-AJ-09		8/18/2017	10:50	NA	NA	NA	NA	NA	NA
OV-4I	GW-081817-AJ-13		8/18/2017	15:30	7.02	18.7	1620	0.16	-43	196
OV-5I	GW-081717-AJ-04		8/17/2017	15:20	6.88	16.7	2680	1.50	39	77
RMW-1I	Not Sampled - Could not be located due to thick brush and trees									
MW276I	GW-081717-AJ-03		8/17/2017	13:50	6.89	17.8	3110	0.71	-19	124
MW278I	GW-081817-AJ-10		8/18/2016	12:50	6.87	21.6	1630	0.42	93	439
MW278I	GW-081817-AJ-11	FD	8/18/2016	13:00	--	--	--	--	--	--
MW279I	To Be Completed 9/5/17				--	--	--	--	--	--
MW280I	Not Sampled - Pumped dry and did not recover									

Table 1

Page 2 of 2

Monitoring Well Sampling Summary
August 2017
Rexnord
Downers Grove, Illinois

Location	Sample Number	QA/QC	Sample Date	Sample Time	pH	Temperature (°C)	Conductivity (uS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
Bedrock Wells										
BD-1D	GW-081817-AJ-14		8/18/2017	17:20	7.07	17.7	1190	0.19	23	289
BD-2D	GW-081817-AJ-05		8/18/2017	9:10	6.91	16.8	1700	0.79	-112	366
BD-2D	GW-081817-AJ-06	MS/MSD & FD	8/18/2017	9:20	--	--	--	--	--	--
BD-8D	GW-082117-AJ-01		8/17/2017	11:50	6.75	16.2	1160	0.49	-26	221
RMW-1D	Not Sampled - Could not be located due to thick brush and trees									
RMW-2D	GW-082117-AJ-20		8/21/2017	14:00	NA	NA	NA	NA	NA	NA
Equip. Blank	GW-082117-AJ-21	EB	8/21/2017	14:30	--	--	--	--	--	--
RMW-3D	GW-082117-AJ-18		8/21/2017	12:30	7.06	21.0	1730	1.70	106	343
RMW-4D	GW-081817-AJ-12		8/18/2017	14:10	6.80	15.9	1840	0.26	-21	212
RMW-5D	GW-082117-AJ-17		8/21/2017	10:30	7.08	17.1	1160	0.34	-96	191

Notes:

FD - Field duplicate

EB - Equipment blank

MS/MSD - Matrix spike and MS duplicate

Table 2

Page 1 of 4

**Summary of Analytical Results
for Contaminants of Concern and 1,4-Dioxane
Rexnord
Downers Grove, Illinois**

Well Designation	Date	Units	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	1,4-Dioxane
Drift Wells									
BD-1I	6/13/02	ug/l	1.3	1 U	1 U	1 U	1 U	1 U	1 U
BD-1I	3/8/06	ug/l	0.68 J	1 U	1 U	1 U	1 U	1 U	1 U
BD-1I	2/9/07	ug/l	1.3	1 U	1 U	1 U	1 U	1 U	1 U
BD-1I	2/9/07	ug/l	1.2 J	1 U	1 U	1 U	1 U	1 U	1 U
BD-1I	8/21/17	ug/l	0.80 J	1 U	1 U	1 U	1 U	1 U	2 U
BD-1I	8/21/17	ug/l	FD 0.36 J	1 U	1 U	1 U	1 U	1 U	2 U
BD-2I	6/12/02	ug/l	1 U	1 U	1 U	1 U	2.1	1 U	
BD-2I	3/7/06	ug/l	1 U	1 U	1 U	1 U	2.5	1 U	
BD-2I	3/7/06	ug/l	FD	1 U	1 U	1 U	3.2	1 U	
BD-2I	2/9/07	ug/l	1 U	1 U	1 U	1 U	3.6	1 U	
BD-2I	2/9/07	ug/l	1 UJ	1 U	1 U	1 U	3.1	1 U	
BD-2I	8/18/17	ug/l	1 U	1 U	1 U	1 U	1.6	1 U	2 U
BD-3I	5/24/02	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
BD-3I	2/9/07	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
BD-3I	2/9/07	ug/l	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U
BD-3I	3/7/06	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	2 U
BD-3I	8/18/17	ug/l	ns	ns	ns	ns	ns	ns	ns
BD-8I	6/10/02	ug/l	0.88 J	1 U	1 U	1 U	0.8 J	0.63 J	
BD-8I	3/7/06	ug/l	0.59 J	1 U	1 U	1 U	0.62 J	0.38 J	
BD-8I	2/9/07	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	
BD-8I	2/9/07	ug/l	0.23 J	1 U	1 U	1 U	1 U	1 U	
BD-8I	8/17/17	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	2 U

Table 2

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**Summary of Analytical Results
for Contaminants of Concern and 1,4-Dioxane
Rexnord
Downers Grove, Illinois**

Well Designation	Date	Units	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	1,4-Dioxane
MW-276I	2/12/07	ug/l	1 U	5.1	1 U	0.7	1 U	21	
MW-276I	2/12/07	ug/l	1 UJ	4.2	1 U	0.64 J	1 U	18	
MW-276I	8/17/17	ug/l	1 U	2.3	1 U	0.45 J	1 U	21	0.35 J
MW-278I	2/13/07	ug/l	1.5	1 U	1 U	1 U	1 U	1 U	
MW-278I	2/13/07	ug/l	1.0	1 U	1 U	1 U	1 U	1 U	
MW-278I	8/18/17	ug/l	0.48 J	1 U	1 U	1 U	1 U	1 U	2 U
MW-278I	8/18/17	ug/l	FD	1 U	1 U	1 U	1 U	1 U	2 U
MW-279I	2/12/07	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	
MW-279I	2/12/07	ug/l	1 UJ	1 U	1 U	1 U	1 U	1 U	
MW-279I	9/5/17	ug/l	To Be Completed 9/5/17						
MW-280I	2/12/07	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	
MW-280I	2/12/07	ug/l	1 UJ	1 U	1 U	1 U	0.22 J	1 U	
MW-280I	8/18/17	ug/l	ns	ns	ns	ns	ns	ns	ns
OV-1I	6/13/02	ug/l	1 U	1 U	1 U	1.3	38	37	
OV-1I	3/9/06	ug/l	0.52 J	1 U	1 U	1 U	33	13	
OV-1I	2/9/07	ug/l	FD	1 U	1 U	1 U	27	18	
OV-1I	2/9/07	ug/l	1 U	1 U	1 U	1 U	30	17	
OV-1I	2/9/07	ug/l	0.49 J	1 U	1 U	1 U	21	15	
OV-1I	8/18/17	ug/l	0.25 J	1 U	1 U	1 U	5.1	1 U	2 U
OV-4I	6/10/02	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	
OV-4I	3/6/06	ug/l	1 U	0.29 J	1 U	1 U	1 U	1 U	
OV-4I	2/12/07	ug/l	FD	1 U	1 U	1 U	1 U	1 U	
OV-4I	2/12/07	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	
OV-4I	2/12/07	ug/l	FD	1 UJ	0.32 J	1 U	1 U	1 U	
OV-4I	2/12/07	ug/l	1 UJ	0.31 J	1 U	1 U	1 U	1 U	
OV-4I	8/18/17	ug/l	1 U	0.39 J	1 U	1 U	1 U	1 U	2 U

Table 2

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**Summary of Analytical Results
for Contaminants of Concern and 1,4-Dioxane
Rexnord
Downers Grove, Illinois**

Well Designation	Date	Units	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	1,4-Dioxane
OV-5I	6/10/02	ug/l	51	0.53 J	1 U	1 U	1.2	58	
OV-5I	3/8/06	ug/l	12	4.7	0.45 J	1 U	0.52 J	21	
OV-5I	2/9/07	ug/l	43	1.1	1 U	1 U	1.1	31	
OV-5I	2/9/07	ug/l	43 J	0.66 J	0.91 J	1.7 U	0.65 J	27	
OV-5I	8/17/17	ug/l	35	5.5	0.72	1.7	0.74	40	2 U
RMW-1I	2/14/06	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	
RMW-1I	3/6/06	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	
RMW-1I	2/12/07	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	
RMW-1I	2/12/07	ug/l	1 UJ	1 U	1 U	1 U	1 U	1 U	
RMW-1I	8/18/17	ug/l	ns	ns	ns	ns	ns	ns	ns
Bedrock Wells									
BD-1D	6/12/02	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	
BD-1D	3/8/06	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	
BD-1D	2/9/07	ug/l	FD	1 U	1 U	1 U	1 U	1 U	
BD-1D	2/9/07	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	
BD-1D	2/9/07	ug/l	1 UJ	1 U	1 U	1 U	1 U	1 U	
BD-1D	8/18/17	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	2 U
BD-2D	6/12/02	ug/l	1 U	1 U	1 U	1 U	13	0.63 J	
BD-2D	6/12/02	ug/l	FD	0.55 J	1 U	1 U	13	1 U	
BD-2D	3/7/06	ug/l	0.41 J	1 U	1 U	1 U	13	0.81 J	
BD-2D	2/12/07	ug/l	1.0	1 U	1 U	1 U	20	1.0	
BD-2D	2/12/07	ug/l	FD	0.96 J	1 U	1 U	17	1.0	
BD-2D	8/18/17	ug/l	0.39 J	1 U	1 U	2.7	3.4	1.2	2 U
BD-2D	8/18/17	ug/l	FD	0.33 J	1 U	1 U	2.8	3.3	1.1
BD-8D	6/10/02	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	
BD-8D	3/7/06	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	
BD-8D	2/9/07	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	
BD-8D	2/9/07	ug/l	1 UJ	1 U	1 U	1 U	1 U	1 U	
BD-8D	8/17/17	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	2 U

Table 2

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**Summary of Analytical Results
for Contaminants of Concern and 1,4-Dioxane
Rexnord
Downers Grove, Illinois**

Well Designation	Date	Units	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	1,4-Dioxane
RMW-1D	2/13/06	ug/l	1 U	1 U	1 U	1 U	0.57 J	1 U	
RMW-1D	3/6/06	ug/l	1 U	1 U	1 U	1 U	0.42 J	1 U	
RMW-1D	2/12/07	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	
RMW-1D	2/12/07	ug/l	1 UJ	1 U	1 U	1 U	0.33 J	1 U	
RMW-1D	8/18/17	ug/l	ns	ns	ns	ns	ns	ns	ns
RMW-2D	2/13/06	ug/l	1 U	1 U	1 U	1 U	0.52 J	1 U	
RMW-2D	2/13/06	ug/l	FD	1 U	1 U	1 U	0.50 J	1 U	
RMW-2D	3/7/06	ug/l		1 U	1 U	1 U	0.33 J	1 U	
RMW-2D	2/9/07	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	
RMW-2D	2/9/07	ug/l	1 UJ	1 U	1 U	1 U	0.30 J	1 U	
RMW-2D	8/21/17	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	2 U
RMW-3D	2/14/06	ug/l	1.7	0.68 J	1 U	1 U	0.31 J	0.86 J	
RMW-3D	3/7/06	ug/l	1.3	0.66 J	1 U	1 U	0.22 J	0.71 J	
RMW-3D	3/7/06	ug/l	FD	1.3	0.63 J	1 U	1 U	0.22 J	0.66 J
RMW-3D	2/14/07	ug/l		1 U	1 U	1 U	1 U	1 U	1 U
RMW-3D	8/21/17	ug/l	2.4	0.81 J	1 U	1 U	1 U	0.46 J	0.60 J
RMW-4D	2/14/06	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	
RMW-4D	3/6/06	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	
RMW-4D	8/18/17	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	2 U
RMW-5D	2/14/06	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	
RMW-5D	3/7/06	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	
RMW-5D	2/9/07	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	
RMW-5D	8/21/17	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	2 U

Notes:

- U - Not detected at the associated reporting limit
- J - Estimated value, above detection limit but below reporting limit
- FD - Field duplicate
- ug/l - Microgram per liter
- 21 - 2017 concentration exceeds MCL

Table 3

Page 1 of 1

**Groundwater Elevations
Rexnord
Downers Grove, Illinois**

Well Location	Top of Casing Elevation	Depth to Water 8/18/2017	Groundwater Elevation 8/18/2017
Drift Wells			
BD-1 I	696.56	26.25	670.31
BD-2 I	701.78	34.16	667.62
BD-3 I	686.37	--	--
BD-8 I	689.86	36.85	653.01
OV-1 I	702.56	47.37	655.19
OV-4 I	691.04	39.25	651.79
OV-5 I	694.56	40.96	653.60
RMW-1 I	691.82	--	--
276I	695.03	41.14	653.89
278I	701.73	35.31	666.42
279I	703.08	--	--
280I	701.42	39.06	662.36
		--	--
Bedrock Wells			
BD-1 D	696.25	44.52	651.73
BD-2 D	701.78	50.10	651.68
BD-8 D	690.00	37.58	652.42
RMW-1 D	691.43	--	--
RMW-2 D	688.63	37.32	651.31
RMW-3 D	688.49	37.10	651.39
RMW-4 D	690.76	39.19	651.57
RMW-5 D	690.54	38.46	652.08

Notes:

All elevations shown in feet above mean sea level (ASML).

-- Not measured

Attachment 1

Laboratory Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-83935-1

Client Project/Site: 30409, Ellsworth Industrial Park

For:

GHD Services Inc.

1801 Old Highway 8 NW

Suite 114

St. Paul, Minnesota 55112

Attn: Mr. Grant Anderson

Denise Heckler

Authorized for release by:

8/25/2017 10:34:54 AM

Denise Heckler, Project Manager II

(330)966-9477

denise.heckler@testamericainc.com

LINKS

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The
Expert

Visit us at:

www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: GHD Services Inc.
Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Job ID: 240-83935-1

Laboratory: TestAmerica Canton

Narrative

Job Narrative 240-83935-1

Comments

No additional comments.

Receipt

The samples were received on 8/19/2017 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.1° C.

GC/MS VOA

Method(s) 8260B/SIM: The following sample was submitted for volatile analysis with insufficient preservation (pH>2): GW-081717-AJ-03 (240-83935-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8260B SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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Sample Summary

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-83935-1	GW-081717-AJ-01	Water	08/17/17 11:50	08/19/17 09:45
240-83935-2	GW-081717-JK-02	Water	08/17/17 12:15	08/19/17 09:45
240-83935-3	GW-081717-AJ-03	Water	08/17/17 13:50	08/19/17 09:45
240-83935-4	GW-081717-AJ-04	Water	08/17/17 15:20	08/19/17 09:45
240-83935-5	GW-081817-AJ-05	Water	08/18/17 09:10	08/19/17 09:45
240-83935-6	GW-081817-AJ-06	Water	08/18/17 09:20	08/19/17 09:45
240-83935-7	GW-081817-AJ-07	Water	08/18/17 09:30	08/19/17 09:45
240-83935-8	GW-081817-AJ-08	Water	08/18/17 09:45	08/19/17 09:45
240-83935-9	GW-081817-AJ-09	Water	08/18/17 10:50	08/19/17 09:45
240-83935-10	GW-081817-AJ-10	Water	08/18/17 12:50	08/19/17 09:45
240-83935-11	GW-081817-AJ-11	Water	08/18/17 13:00	08/19/17 09:45
240-83935-12	GW-081817-AJ-12	Water	08/18/17 14:10	08/19/17 09:45
240-83935-13	GW-081817-AJ-13	Water	08/18/17 15:30	08/19/17 09:45
240-83935-14	GW-081817-AJ-14	Water	08/18/17 17:20	08/19/17 09:45
240-83935-15	TRIP BLANK	Water	08/17/17 00:00	08/19/17 09:45

Detection Summary

Client: GHD Services Inc.
Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Client Sample ID: GW-081717-AJ-01

Lab Sample ID: 240-83935-1

No Detections.

Client Sample ID: GW-081717-JK-02

Lab Sample ID: 240-83935-2

No Detections.

Client Sample ID: GW-081717-AJ-03

Lab Sample ID: 240-83935-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.35	J	2.0	0.24	ug/L	1		8260B SIM	Total/NA
1,1-Dichloroethane	2.3		1.0	0.25	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.45	J	1.0	0.30	ug/L	1		8260B	Total/NA
Trichloroethene	21		1.0	0.33	ug/L	1		8260B	Total/NA

Client Sample ID: GW-081717-AJ-04

Lab Sample ID: 240-83935-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	35		1.7	0.38	ug/L	1.67		8260B	Total/NA
1,1-Dichloroethane	5.5		1.7	0.42	ug/L	1.67		8260B	Total/NA
1,1-Dichloroethene	0.72	J	1.7	0.45	ug/L	1.67		8260B	Total/NA
Tetrachloroethene	0.74	J	1.7	0.50	ug/L	1.67		8260B	Total/NA
Trichloroethene	40		1.7	0.55	ug/L	1.67		8260B	Total/NA

Client Sample ID: GW-081817-AJ-05

Lab Sample ID: 240-83935-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.39	J	1.0	0.23	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	2.7		1.0	0.30	ug/L	1		8260B	Total/NA
Tetrachloroethene	3.4		1.0	0.30	ug/L	1		8260B	Total/NA
Trichloroethene	1.2		1.0	0.33	ug/L	1		8260B	Total/NA

Client Sample ID: GW-081817-AJ-06

Lab Sample ID: 240-83935-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.33	J	1.0	0.23	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	2.8		1.0	0.30	ug/L	1		8260B	Total/NA
Tetrachloroethene	3.3		1.0	0.30	ug/L	1		8260B	Total/NA
Trichloroethene	1.1		1.0	0.33	ug/L	1		8260B	Total/NA

Client Sample ID: GW-081817-AJ-07

Lab Sample ID: 240-83935-7

No Detections.

Client Sample ID: GW-081817-AJ-08

Lab Sample ID: 240-83935-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.6		1.0	0.30	ug/L	1		8260B	Total/NA

Client Sample ID: GW-081817-AJ-09

Lab Sample ID: 240-83935-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.25	J	1.0	0.23	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Detection Summary

Client: GHD Services Inc.
Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Client Sample ID: GW-081817-AJ-09 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	5.1		1.0	0.30	ug/L	1		8260B	Total/NA

Client Sample ID: GW-081817-AJ-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.48	J	1.0	0.23	ug/L	1		8260B	Total/NA

Client Sample ID: GW-081817-AJ-11

No Detections.

Client Sample ID: GW-081817-AJ-12

No Detections.

Client Sample ID: GW-081817-AJ-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.39	J	1.0	0.25	ug/L	1		8260B	Total/NA

Client Sample ID: GW-081817-AJ-14

No Detections.

Client Sample ID: TRIP BLANK

No Detections.

Lab Sample ID: 240-83935-9

Lab Sample ID: 240-83935-10

Lab Sample ID: 240-83935-11

Lab Sample ID: 240-83935-12

Lab Sample ID: 240-83935-13

Lab Sample ID: 240-83935-14

Lab Sample ID: 240-83935-15

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Client Sample ID: GW-081717-AJ-01

Lab Sample ID: 240-83935-1

Matrix: Water

Date Collected: 08/17/17 11:50

Date Received: 08/19/17 09:45

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/21/17 17:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		63 - 125					08/21/17 17:57	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			08/22/17 13:57	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			08/22/17 13:57	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/22/17 13:57	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/22/17 13:57	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/22/17 13:57	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 13:57	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 13:57	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/22/17 13:57	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			08/22/17 13:57	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/22/17 13:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		61 - 138					08/22/17 13:57	1
4-Bromofluorobenzene (Surr)	100		69 - 120					08/22/17 13:57	1
Toluene-d8 (Surr)	100		73 - 120					08/22/17 13:57	1
Dibromofluoromethane (Surr)	89		69 - 124					08/22/17 13:57	1

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Client Sample ID: GW-081717-JK-02

Date Collected: 08/17/17 12:15

Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-2

Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/21/17 18:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		63 - 125					08/21/17 18:22	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			08/22/17 14:19	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			08/22/17 14:19	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/22/17 14:19	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/22/17 14:19	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/22/17 14:19	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 14:19	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 14:19	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/22/17 14:19	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			08/22/17 14:19	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/22/17 14:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		61 - 138					08/22/17 14:19	1
4-Bromofluorobenzene (Surr)	99		69 - 120					08/22/17 14:19	1
Toluene-d8 (Surr)	102		73 - 120					08/22/17 14:19	1
Dibromofluoromethane (Surr)	93		69 - 124					08/22/17 14:19	1

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Client Sample ID: GW-081717-AJ-03

Date Collected: 08/17/17 13:50

Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-3

Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.35	J	2.0	0.24	ug/L			08/21/17 18:47	1
Surrogate									
1,2-Dichloroethane-d4 (Surr)	93		63 - 125					08/21/17 18:47	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			08/22/17 14:41	1
1,1-Dichloroethane	2.3		1.0	0.25	ug/L			08/22/17 14:41	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/22/17 14:41	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/22/17 14:41	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/22/17 14:41	1
cis-1,2-Dichloroethene	0.45	J	1.0	0.30	ug/L			08/22/17 14:41	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 14:41	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/22/17 14:41	1
Trichloroethene	21		1.0	0.33	ug/L			08/22/17 14:41	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/22/17 14:41	1
Surrogate									
1,2-Dichloroethane-d4 (Surr)	103		61 - 138					08/22/17 14:41	1
4-Bromofluorobenzene (Surr)	99		69 - 120					08/22/17 14:41	1
Toluene-d8 (Surr)	106		73 - 120					08/22/17 14:41	1
Dibromofluoromethane (Surr)	93		69 - 124					08/22/17 14:41	1

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Client Sample ID: GW-081717-AJ-04

Date Collected: 08/17/17 15:20

Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-4

Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/21/17 19:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		63 - 125					08/21/17 19:12	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	35		1.7	0.38	ug/L			08/23/17 14:20	1.67
1,1-Dichloroethane	5.5		1.7	0.42	ug/L			08/23/17 14:20	1.67
1,1-Dichloroethene	0.72 J		1.7	0.45	ug/L			08/23/17 14:20	1.67
1,2-Dichloroethane	1.7 U		1.7	0.50	ug/L			08/23/17 14:20	1.67
Carbon tetrachloride	1.7 U		1.7	0.58	ug/L			08/23/17 14:20	1.67
cis-1,2-Dichloroethene	1.7 U		1.7	0.50	ug/L			08/23/17 14:20	1.67
Tetrachloroethene	0.74 J		1.7	0.50	ug/L			08/23/17 14:20	1.67
trans-1,2-Dichloroethene	1.7 U		1.7	0.48	ug/L			08/23/17 14:20	1.67
Trichloroethene	40		1.7	0.55	ug/L			08/23/17 14:20	1.67
Vinyl chloride	1.7 U		1.7	0.75	ug/L			08/23/17 14:20	1.67
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		61 - 138					08/23/17 14:20	1.67
4-Bromofluorobenzene (Surr)	106		69 - 120					08/23/17 14:20	1.67
Toluene-d8 (Surr)	99		73 - 120					08/23/17 14:20	1.67
Dibromofluoromethane (Surr)	94		69 - 124					08/23/17 14:20	1.67

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Client Sample ID: GW-081817-AJ-05

Date Collected: 08/18/17 09:10

Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-5

Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/21/17 19:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		63 - 125					08/21/17 19:37	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.39	J	1.0	0.23	ug/L			08/22/17 15:24	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			08/22/17 15:24	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/22/17 15:24	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/22/17 15:24	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/22/17 15:24	1
cis-1,2-Dichloroethene	2.7		1.0	0.30	ug/L			08/22/17 15:24	1
Tetrachloroethene	3.4		1.0	0.30	ug/L			08/22/17 15:24	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/22/17 15:24	1
Trichloroethene	1.2		1.0	0.33	ug/L			08/22/17 15:24	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/22/17 15:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		61 - 138					08/22/17 15:24	1
4-Bromofluorobenzene (Surr)	109		69 - 120					08/22/17 15:24	1
Toluene-d8 (Surr)	103		73 - 120					08/22/17 15:24	1
Dibromofluoromethane (Surr)	93		69 - 124					08/22/17 15:24	1

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Client Sample ID: GW-081817-AJ-06

Date Collected: 08/18/17 09:20

Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-6

Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/21/17 20:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		63 - 125					08/21/17 20:01	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.33	J	1.0	0.23	ug/L			08/22/17 21:20	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			08/22/17 21:20	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/22/17 21:20	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/22/17 21:20	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/22/17 21:20	1
cis-1,2-Dichloroethene	2.8		1.0	0.30	ug/L			08/22/17 21:20	1
Tetrachloroethene	3.3		1.0	0.30	ug/L			08/22/17 21:20	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/22/17 21:20	1
Trichloroethene	1.1		1.0	0.33	ug/L			08/22/17 21:20	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/22/17 21:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		61 - 138					08/22/17 21:20	1
4-Bromofluorobenzene (Surr)	109		69 - 120					08/22/17 21:20	1
Toluene-d8 (Surr)	102		73 - 120					08/22/17 21:20	1
Dibromofluoromethane (Surr)	93		69 - 124					08/22/17 21:20	1

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Client Sample ID: GW-081817-AJ-07

Date Collected: 08/18/17 09:30

Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-7

Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/21/17 21:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		63 - 125					08/21/17 21:16	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			08/22/17 15:46	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			08/22/17 15:46	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/22/17 15:46	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/22/17 15:46	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/22/17 15:46	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 15:46	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 15:46	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/22/17 15:46	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			08/22/17 15:46	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/22/17 15:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		61 - 138					08/22/17 15:46	1
4-Bromofluorobenzene (Surr)	106		69 - 120					08/22/17 15:46	1
Toluene-d8 (Surr)	101		73 - 120					08/22/17 15:46	1
Dibromofluoromethane (Surr)	95		69 - 124					08/22/17 15:46	1

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Client Sample ID: GW-081817-AJ-08

Date Collected: 08/18/17 09:45

Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-8

Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/22/17 14:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		63 - 125					08/22/17 14:18	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			08/22/17 16:08	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			08/22/17 16:08	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/22/17 16:08	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/22/17 16:08	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/22/17 16:08	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 16:08	1
Tetrachloroethene	1.6		1.0	0.30	ug/L			08/22/17 16:08	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/22/17 16:08	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			08/22/17 16:08	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/22/17 16:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		61 - 138					08/22/17 16:08	1
4-Bromofluorobenzene (Surr)	108		69 - 120					08/22/17 16:08	1
Toluene-d8 (Surr)	101		73 - 120					08/22/17 16:08	1
Dibromofluoromethane (Surr)	92		69 - 124					08/22/17 16:08	1

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Client Sample ID: GW-081817-AJ-09

Date Collected: 08/18/17 10:50

Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-9

Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/22/17 14:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		63 - 125					08/22/17 14:43	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	J	1.0	0.23	ug/L			08/22/17 16:31	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			08/22/17 16:31	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/22/17 16:31	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/22/17 16:31	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/22/17 16:31	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 16:31	1
Tetrachloroethene	5.1		1.0	0.30	ug/L			08/22/17 16:31	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/22/17 16:31	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			08/22/17 16:31	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/22/17 16:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		61 - 138					08/22/17 16:31	1
4-Bromofluorobenzene (Surr)	112		69 - 120					08/22/17 16:31	1
Toluene-d8 (Surr)	100		73 - 120					08/22/17 16:31	1
Dibromofluoromethane (Surr)	93		69 - 124					08/22/17 16:31	1

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Client Sample ID: GW-081817-AJ-10

Lab Sample ID: 240-83935-10

Matrix: Water

Date Collected: 08/18/17 12:50

Date Received: 08/19/17 09:45

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/22/17 15:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	73		63 - 125					08/22/17 15:08	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.48	J	1.0	0.23	ug/L			08/22/17 16:53	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			08/22/17 16:53	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/22/17 16:53	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/22/17 16:53	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/22/17 16:53	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 16:53	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 16:53	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/22/17 16:53	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			08/22/17 16:53	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/22/17 16:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		61 - 138					08/22/17 16:53	1
4-Bromofluorobenzene (Surr)	106		69 - 120					08/22/17 16:53	1
Toluene-d8 (Surr)	100		73 - 120					08/22/17 16:53	1
Dibromofluoromethane (Surr)	95		69 - 124					08/22/17 16:53	1

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Client Sample ID: GW-081817-AJ-11

Lab Sample ID: 240-83935-11

Matrix: Water

Date Collected: 08/18/17 13:00

Date Received: 08/19/17 09:45

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/22/17 16:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		63 - 125					08/22/17 16:22	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			08/22/17 17:15	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			08/22/17 17:15	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/22/17 17:15	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/22/17 17:15	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/22/17 17:15	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 17:15	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 17:15	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/22/17 17:15	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			08/22/17 17:15	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/22/17 17:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		61 - 138					08/22/17 17:15	1
4-Bromofluorobenzene (Surr)	105		69 - 120					08/22/17 17:15	1
Toluene-d8 (Surr)	102		73 - 120					08/22/17 17:15	1
Dibromofluoromethane (Surr)	95		69 - 124					08/22/17 17:15	1

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Client Sample ID: GW-081817-AJ-12

Lab Sample ID: 240-83935-12

Matrix: Water

Date Collected: 08/18/17 14:10

Date Received: 08/19/17 09:45

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/22/17 16:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		63 - 125					08/22/17 16:47	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			08/22/17 17:38	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			08/22/17 17:38	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/22/17 17:38	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/22/17 17:38	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/22/17 17:38	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 17:38	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 17:38	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/22/17 17:38	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			08/22/17 17:38	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/22/17 17:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		61 - 138					08/22/17 17:38	1
4-Bromofluorobenzene (Surr)	106		69 - 120					08/22/17 17:38	1
Toluene-d8 (Surr)	99		73 - 120					08/22/17 17:38	1
Dibromofluoromethane (Surr)	94		69 - 124					08/22/17 17:38	1

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Client Sample ID: GW-081817-AJ-13

Lab Sample ID: 240-83935-13

Matrix: Water

Date Collected: 08/18/17 15:30

Date Received: 08/19/17 09:45

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/22/17 17:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		63 - 125					08/22/17 17:12	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			08/22/17 18:00	1
1,1-Dichloroethane	0.39	J	1.0	0.25	ug/L			08/22/17 18:00	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/22/17 18:00	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/22/17 18:00	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/22/17 18:00	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 18:00	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 18:00	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/22/17 18:00	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			08/22/17 18:00	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/22/17 18:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		61 - 138					08/22/17 18:00	1
4-Bromofluorobenzene (Surr)	108		69 - 120					08/22/17 18:00	1
Toluene-d8 (Surr)	99		73 - 120					08/22/17 18:00	1
Dibromofluoromethane (Surr)	94		69 - 124					08/22/17 18:00	1

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Client Sample ID: GW-081817-AJ-14

Lab Sample ID: 240-83935-14

Matrix: Water

Date Collected: 08/18/17 17:20

Date Received: 08/19/17 09:45

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/22/17 17:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		63 - 125					08/22/17 17:37	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			08/22/17 18:22	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			08/22/17 18:22	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/22/17 18:22	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/22/17 18:22	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/22/17 18:22	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 18:22	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 18:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/22/17 18:22	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			08/22/17 18:22	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/22/17 18:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		61 - 138					08/22/17 18:22	1
4-Bromofluorobenzene (Surr)	110		69 - 120					08/22/17 18:22	1
Toluene-d8 (Surr)	103		73 - 120					08/22/17 18:22	1
Dibromofluoromethane (Surr)	94		69 - 124					08/22/17 18:22	1

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-83935-15

Matrix: Water

Date Collected: 08/17/17 00:00

Date Received: 08/19/17 09:45

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/22/17 13:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		63 - 125					08/22/17 13:52	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			08/22/17 19:09	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			08/22/17 19:09	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/22/17 19:09	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/22/17 19:09	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/22/17 19:09	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 19:09	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 19:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/22/17 19:09	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			08/22/17 19:09	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/22/17 19:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		61 - 138					08/22/17 19:09	1
4-Bromofluorobenzene (Surr)	100		69 - 120					08/22/17 19:09	1
Toluene-d8 (Surr)	100		73 - 120					08/22/17 19:09	1
Dibromofluoromethane (Surr)	94		69 - 124					08/22/17 19:09	1

Surrogate Summary

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (61-138)	BFB (69-120)	TOL (73-120)	DBFM (69-124)
240-83935-1	GW-081717-AJ-01	99	100	100	89
240-83935-2	GW-081717-JK-02	101	99	102	93
240-83935-3	GW-081717-AJ-03	103	99	106	93
240-83935-4	GW-081717-AJ-04	100	106	99	94
240-83935-5	GW-081817-AJ-05	102	109	103	93
240-83935-6	GW-081817-AJ-06	101	109	102	93
240-83935-6 MS	GW-081817-AJ-06	98	114	102	92
240-83935-6 MSD	GW-081817-AJ-06	101	113	104	92
240-83935-7	GW-081817-AJ-07	105	106	101	95
240-83935-8	GW-081817-AJ-08	100	108	101	92
240-83935-9	GW-081817-AJ-09	103	112	100	93
240-83935-10	GW-081817-AJ-10	101	106	100	95
240-83935-11	GW-081817-AJ-11	105	105	102	95
240-83935-12	GW-081817-AJ-12	101	106	99	94
240-83935-13	GW-081817-AJ-13	100	108	99	94
240-83935-14	GW-081817-AJ-14	102	110	103	94
240-83935-15	TRIP BLANK	101	100	100	94
LCS 240-292083/4	Lab Control Sample	97	112	105	92
LCS 240-292209/4	Lab Control Sample	103	117	107	90
MB 240-292083/6	Method Blank	100	106	99	91
MB 240-292209/6	Method Blank	99	108	102	91

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (63-125)			
240-83935-1	GW-081717-AJ-01	93			
240-83935-2	GW-081717-JK-02	92			
240-83935-3	GW-081717-AJ-03	93			
240-83935-4	GW-081717-AJ-04	94			
240-83935-5	GW-081817-AJ-05	95			
240-83935-6	GW-081817-AJ-06	94			
240-83935-6 MS	GW-081817-AJ-06	89			
240-83935-6 MSD	GW-081817-AJ-06	87			
240-83935-7	GW-081817-AJ-07	88			
240-83935-8	GW-081817-AJ-08	89			
240-83935-9	GW-081817-AJ-09	108			
240-83935-10	GW-081817-AJ-10	73			
240-83935-10 MS	GW-081817-AJ-10	81			
240-83935-10 MSD	GW-081817-AJ-10	85			
240-83935-11	GW-081817-AJ-11	83			

TestAmerica Canton

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Method: 8260B SIM - Volatile Organic Compounds (GC/MS) (Continued)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

12DCE

(63-125)

Lab Sample ID	Client Sample ID	12DCE (63-125)
240-83935-12	GW-081817-AJ-12	83
240-83935-13	GW-081817-AJ-13	83
240-83935-14	GW-081817-AJ-14	83
240-83935-15	TRIP BLANK	84
LCS 240-291901/4	Lab Control Sample	90
LCS 240-292072/4	Lab Control Sample	85
MB 240-291901/5	Method Blank	94
MB 240-292072/5	Method Blank	103

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

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TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-292083/6

Matrix: Water

Analysis Batch: 292083

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			08/22/17 13:34	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			08/22/17 13:34	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/22/17 13:34	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/22/17 13:34	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/22/17 13:34	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 13:34	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			08/22/17 13:34	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/22/17 13:34	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			08/22/17 13:34	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/22/17 13:34	1

MB MB

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	100		61 - 138		08/22/17 13:34	1
4-Bromofluorobenzene (Surr)	106		69 - 120		08/22/17 13:34	1
Toluene-d8 (Surr)	99		73 - 120		08/22/17 13:34	1
Dibromofluoromethane (Surr)	91		69 - 124		08/22/17 13:34	1

Lab Sample ID: LCS 240-292083/4

Matrix: Water

Analysis Batch: 292083

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
1,1,1-Trichloroethane	10.0	9.20		ug/L		92	64 - 147	
1,1-Dichloroethane	10.0	10.2		ug/L		102	74 - 120	
1,1-Dichloroethene	10.0	9.11		ug/L		91	65 - 127	
1,2-Dichloroethane	10.0	9.55		ug/L		96	68 - 133	
Carbon tetrachloride	10.0	8.99		ug/L		90	55 - 171	
cis-1,2-Dichloroethene	10.0	9.29		ug/L		93	77 - 120	
Tetrachloroethene	10.0	8.07		ug/L		81	80 - 122	
trans-1,2-Dichloroethene	10.0	9.40		ug/L		94	74 - 124	
Trichloroethene	10.0	8.24		ug/L		82	76 - 124	
Vinyl chloride	10.0	9.83		ug/L		98	65 - 124	

LCS LCS

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	97		61 - 138
4-Bromofluorobenzene (Surr)	112		69 - 120
Toluene-d8 (Surr)	105		73 - 120
Dibromofluoromethane (Surr)	92		69 - 124

Lab Sample ID: 240-83935-6 MS

Matrix: Water

Analysis Batch: 292083

Client Sample ID: GW-081817-AJ-06
Prep Type: Total/NA

Analyte	Sample		Spike Added	MS		Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
1,1,1-Trichloroethane	0.33	J	10.0	9.60		ug/L		93	57 - 156	
1,1-Dichloroethane	1.0	U	10.0	10.9		ug/L		109	69 - 122	
1,1-Dichloroethene	1.0	U	10.0	9.57		ug/L		96	62 - 127	

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-83935-6 MS

Matrix: Water

Analysis Batch: 292083

Client Sample ID: GW-081817-AJ-06

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
1,2-Dichloroethane	1.0	U	10.0	9.90		ug/L	99	64 - 138	
Carbon tetrachloride	1.0	U	10.0	8.74		ug/L	87	53 - 175	
cis-1,2-Dichloroethene	2.8		10.0	12.2		ug/L	93	69 - 127	
Tetrachloroethylene	3.3		10.0	10.8		ug/L	75	69 - 126	
trans-1,2-Dichloroethene	1.0	U	10.0	9.81		ug/L	98	66 - 131	
Trichloroethylene	1.1		10.0	9.27		ug/L	82	68 - 129	
Vinyl chloride	1.0	U	10.0	9.82		ug/L	98	55 - 123	
<hr/>									
Surrogate	MS		MS	%Recovery	Qualifier	Limits	RPD	Limit	10
	%Recovery								
1,2-Dichloroethane-d4 (Surr)	98			61 - 138					
4-Bromofluorobenzene (Surr)	114			69 - 120					
Toluene-d8 (Surr)	102			73 - 120					
Dibromofluoromethane (Surr)	92			69 - 124					

Lab Sample ID: 240-83935-6 MSD

Matrix: Water

Analysis Batch: 292083

Client Sample ID: GW-081817-AJ-06

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
1,1,1-Trichloroethane	0.33	J	10.0	9.28		ug/L	90	57 - 156		3	13
1,1-Dichloroethane	1.0	U	10.0	10.9		ug/L	109	69 - 122		0	11
1,1-Dichloroethene	1.0	U	10.0	9.45		ug/L	94	62 - 127		1	14
1,2-Dichloroethane	1.0	U	10.0	9.98		ug/L	100	64 - 138		1	11
Carbon tetrachloride	1.0	U	10.0	8.87		ug/L	89	53 - 175		1	17
cis-1,2-Dichloroethene	2.8		10.0	12.3		ug/L	94	69 - 127		1	11
Tetrachloroethylene	3.3		10.0	10.6		ug/L	73	69 - 126		3	18
trans-1,2-Dichloroethene	1.0	U	10.0	9.77		ug/L	98	66 - 131		0	11
Trichloroethylene	1.1		10.0	9.09		ug/L	80	68 - 129		2	12
Vinyl chloride	1.0	U	10.0	10.5		ug/L	105	55 - 123		7	12
<hr/>											
Surrogate	MSD		MSD	%Recovery	Qualifier	Limits	RPD	Limit	13	14	
	%Recovery										
1,2-Dichloroethane-d4 (Surr)	101			61 - 138							
4-Bromofluorobenzene (Surr)	113			69 - 120							
Toluene-d8 (Surr)	104			73 - 120							
Dibromofluoromethane (Surr)	92			69 - 124							

Lab Sample ID: MB 240-292209/6

Matrix: Water

Analysis Batch: 292209

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			08/23/17 12:51	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			08/23/17 12:51	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/23/17 12:51	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/23/17 12:51	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/23/17 12:51	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/23/17 12:51	1
Tetrachloroethylene	1.0	U	1.0	0.30	ug/L			08/23/17 12:51	1

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-292209/6

Matrix: Water

Analysis Batch: 292209

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/23/17 12:51	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			08/23/17 12:51	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/23/17 12:51	1

MB MB

Surrogate	%Recovery		Qualifier	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier					
1,2-Dichloroethane-d4 (Surr)	99			61 - 138		08/23/17 12:51	1
4-Bromofluorobenzene (Surr)	108			69 - 120		08/23/17 12:51	1
Toluene-d8 (Surr)	102			73 - 120		08/23/17 12:51	1
Dibromofluoromethane (Surr)	91			69 - 124		08/23/17 12:51	1

Lab Sample ID: LCS 240-292209/4

Matrix: Water

Analysis Batch: 292209

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
	Added								
1,1,1-Trichloroethane	10.0		9.09		ug/L		91	64 - 147	
1,1-Dichloroethane	10.0		9.99		ug/L		100	74 - 120	
1,1-Dichloroethene	10.0		9.05		ug/L		91	65 - 127	
1,2-Dichloroethane	10.0		9.59		ug/L		96	68 - 133	
Carbon tetrachloride	10.0		8.78		ug/L		88	55 - 171	
cis-1,2-Dichloroethene	10.0		8.95		ug/L		90	77 - 120	
Tetrachloroethene	10.0		8.36		ug/L		84	80 - 122	
trans-1,2-Dichloroethene	10.0		9.05		ug/L		91	74 - 124	
Trichloroethene	10.0		8.08		ug/L		81	76 - 124	
Vinyl chloride	10.0		9.78		ug/L		98	65 - 124	

LCS LCS

Surrogate	%Recovery		Qualifier	Limits
	%Recovery	Qualifier		
1,2-Dichloroethane-d4 (Surr)	103			61 - 138
4-Bromofluorobenzene (Surr)	117			69 - 120
Toluene-d8 (Surr)	107			73 - 120
Dibromofluoromethane (Surr)	90			69 - 124

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-291901/5

Matrix: Water

Analysis Batch: 291901

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/21/17 11:18	1
Surrogate	MB MB								
1,2-Dichloroethane-d4 (Surr)	94			63 - 125					

Client Sample ID: Method Blank
Prep Type: Total/NA

QC Sample Results

Client: GHD Services Inc.
Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Method: 8260B SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-291901/4

Matrix: Water

Analysis Batch: 291901

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	%Rec. Limits
1,4-Dioxane	10.0	8.94		ug/L		89	59 - 131
Surrogate							
Surrogate	%Recovery	LCS Qualifier	Limits				
1,2-Dichloroethane-d4 (Surr)	90		63 - 125				

Lab Sample ID: 240-83935-6 MS

Matrix: Water

Analysis Batch: 291901

Client Sample ID: GW-081817-AJ-06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	%Rec. Limits
1,4-Dioxane	2.0	U	10.0	9.92		ug/L		99	52 - 129
Surrogate									
Surrogate	%Recovery	MS Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	89		63 - 125						

Lab Sample ID: 240-83935-6 MSD

Matrix: Water

Analysis Batch: 291901

Client Sample ID: GW-081817-AJ-06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	RPD	RPD Limit
1,4-Dioxane	2.0	U	10.0	10.0		ug/L		100	52 - 129	1
Surrogate										
Surrogate	%Recovery	MSD Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)	87		63 - 125							

Lab Sample ID: MB 240-292072/5

Matrix: Water

Analysis Batch: 292072

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/22/17 13:03	1
Surrogate									
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		63 - 125					08/22/17 13:03	1

Lab Sample ID: LCS 240-292072/4

Matrix: Water

Analysis Batch: 292072

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	%Rec. Limits
1,4-Dioxane	10.0	9.22		ug/L		92	59 - 131
Surrogate							
Surrogate	%Recovery	LCS Qualifier	Limits				
1,2-Dichloroethane-d4 (Surr)	85		63 - 125				

QC Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Method: 8260B SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-83935-10 MS

Matrix: Water

Analysis Batch: 292072

Client Sample ID: GW-081817-AJ-10

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	2.0	U	10.0	8.33		ug/L		83	52 - 129
Surrogate									
<i>1,2-Dichloroethane-d4 (Sur)</i>									
	<i>MS Recovery</i>	<i>MS Qualifier</i>		<i>Limits</i>					
	81			63 - 125					

Lab Sample ID: 240-83935-10 MSD

Matrix: Water

Analysis Batch: 292072

Client Sample ID: GW-081817-AJ-10

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	2.0	U	10.0	9.30		ug/L		93	52 - 129	11	13
Surrogate											
<i>1,2-Dichloroethane-d4 (Sur)</i>											
	<i>MSD Recovery</i>	<i>MSD Qualifier</i>		<i>Limits</i>							
	85			63 - 125							

QC Association Summary

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

GC/MS VOA

Analysis Batch: 291901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-83935-1	GW-081717-AJ-01	Total/NA	Water	8260B SIM	
240-83935-2	GW-081717-JK-02	Total/NA	Water	8260B SIM	
240-83935-3	GW-081717-AJ-03	Total/NA	Water	8260B SIM	
240-83935-4	GW-081717-AJ-04	Total/NA	Water	8260B SIM	
240-83935-5	GW-081817-AJ-05	Total/NA	Water	8260B SIM	
240-83935-6	GW-081817-AJ-06	Total/NA	Water	8260B SIM	
240-83935-7	GW-081817-AJ-07	Total/NA	Water	8260B SIM	
MB 240-291901/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-291901/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-83935-6 MS	GW-081817-AJ-06	Total/NA	Water	8260B SIM	
240-83935-6 MSD	GW-081817-AJ-06	Total/NA	Water	8260B SIM	

Analysis Batch: 292072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-83935-8	GW-081817-AJ-08	Total/NA	Water	8260B SIM	
240-83935-9	GW-081817-AJ-09	Total/NA	Water	8260B SIM	
240-83935-10	GW-081817-AJ-10	Total/NA	Water	8260B SIM	
240-83935-11	GW-081817-AJ-11	Total/NA	Water	8260B SIM	
240-83935-12	GW-081817-AJ-12	Total/NA	Water	8260B SIM	
240-83935-13	GW-081817-AJ-13	Total/NA	Water	8260B SIM	
240-83935-14	GW-081817-AJ-14	Total/NA	Water	8260B SIM	
240-83935-15	TRIP BLANK	Total/NA	Water	8260B SIM	
MB 240-292072/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-292072/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-83935-10 MS	GW-081817-AJ-10	Total/NA	Water	8260B SIM	
240-83935-10 MSD	GW-081817-AJ-10	Total/NA	Water	8260B SIM	

Analysis Batch: 292083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-83935-1	GW-081717-AJ-01	Total/NA	Water	8260B	
240-83935-2	GW-081717-JK-02	Total/NA	Water	8260B	
240-83935-3	GW-081717-AJ-03	Total/NA	Water	8260B	
240-83935-5	GW-081817-AJ-05	Total/NA	Water	8260B	
240-83935-6	GW-081817-AJ-06	Total/NA	Water	8260B	
240-83935-7	GW-081817-AJ-07	Total/NA	Water	8260B	
240-83935-8	GW-081817-AJ-08	Total/NA	Water	8260B	
240-83935-9	GW-081817-AJ-09	Total/NA	Water	8260B	
240-83935-10	GW-081817-AJ-10	Total/NA	Water	8260B	
240-83935-11	GW-081817-AJ-11	Total/NA	Water	8260B	
240-83935-12	GW-081817-AJ-12	Total/NA	Water	8260B	
240-83935-13	GW-081817-AJ-13	Total/NA	Water	8260B	
240-83935-14	GW-081817-AJ-14	Total/NA	Water	8260B	
240-83935-15	TRIP BLANK	Total/NA	Water	8260B	
MB 240-292083/6	Method Blank	Total/NA	Water	8260B	
LCS 240-292083/4	Lab Control Sample	Total/NA	Water	8260B	
240-83935-6 MS	GW-081817-AJ-06	Total/NA	Water	8260B	
240-83935-6 MSD	GW-081817-AJ-06	Total/NA	Water	8260B	

Analysis Batch: 292209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-83935-4	GW-081717-AJ-04	Total/NA	Water	8260B	

TestAmerica Canton

QC Association Summary

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

GC/MS VOA (Continued)

Analysis Batch: 292209 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-292209/6	Method Blank	Total/NA	Water	8260B	
LCS 240-292209/4	Lab Control Sample	Total/NA	Water	8260B	

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Lab Chronicle

Client: GHD Services Inc.
Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Client Sample ID: GW-081717-AJ-01

Date Collected: 08/17/17 11:50

Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	292083	08/22/17 13:57	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	291901	08/21/17 17:57	SAM	TAL CAN

Client Sample ID: GW-081717-JK-02

Date Collected: 08/17/17 12:15

Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	292083	08/22/17 14:19	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	291901	08/21/17 18:22	SAM	TAL CAN

Client Sample ID: GW-081717-AJ-03

Date Collected: 08/17/17 13:50

Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	292083	08/22/17 14:41	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	291901	08/21/17 18:47	SAM	TAL CAN

Client Sample ID: GW-081717-AJ-04

Date Collected: 08/17/17 15:20

Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1.67	292209	08/23/17 14:20	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	291901	08/21/17 19:12	SAM	TAL CAN

Client Sample ID: GW-081817-AJ-05

Date Collected: 08/18/17 09:10

Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	292083	08/22/17 15:24	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	291901	08/21/17 19:37	SAM	TAL CAN

Client Sample ID: GW-081817-AJ-06

Date Collected: 08/18/17 09:20

Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	292083	08/22/17 21:20	LRW	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Client Sample ID: GW-081817-AJ-06

Date Collected: 08/18/17 09:20
Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B SIM		1	291901	08/21/17 20:01	SAM	TAL CAN

Client Sample ID: GW-081817-AJ-07

Date Collected: 08/18/17 09:30
Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	292083	08/22/17 15:46	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	291901	08/21/17 21:16	SAM	TAL CAN

Client Sample ID: GW-081817-AJ-08

Date Collected: 08/18/17 09:45
Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	292083	08/22/17 16:08	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	292072	08/22/17 14:18	SAM	TAL CAN

Client Sample ID: GW-081817-AJ-09

Date Collected: 08/18/17 10:50
Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	292083	08/22/17 16:31	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	292072	08/22/17 14:43	SAM	TAL CAN

Client Sample ID: GW-081817-AJ-10

Date Collected: 08/18/17 12:50
Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	292083	08/22/17 16:53	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	292072	08/22/17 15:08	SAM	TAL CAN

Client Sample ID: GW-081817-AJ-11

Date Collected: 08/18/17 13:00
Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	292083	08/22/17 17:15	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	292072	08/22/17 16:22	SAM	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Client Sample ID: GW-081817-AJ-12

Date Collected: 08/18/17 14:10
Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	292083	08/22/17 17:38	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	292072	08/22/17 16:47	SAM	TAL CAN

Client Sample ID: GW-081817-AJ-13

Date Collected: 08/18/17 15:30
Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	292083	08/22/17 18:00	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	292072	08/22/17 17:12	SAM	TAL CAN

Client Sample ID: GW-081817-AJ-14

Date Collected: 08/18/17 17:20
Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	292083	08/22/17 18:22	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	292072	08/22/17 17:37	SAM	TAL CAN

Client Sample ID: TRIP BLANK

Date Collected: 08/17/17 00:00
Date Received: 08/19/17 09:45

Lab Sample ID: 240-83935-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	292083	08/22/17 19:09	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	292072	08/22/17 13:52	SAM	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TestAmerica Canton

Accreditation/Certification Summary

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83935-1

Laboratory: TestAmerica Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2927	02-23-18
Connecticut	State Program	1	PH-0590	12-31-17 *
Florida	NELAP	4	E87225	06-30-18
Illinois	NELAP	5	200004	07-31-18
Kansas	NELAP	7	E-10336	01-31-18 *
Kentucky (UST)	State Program	4	58	02-23-18
Kentucky (WW)	State Program	4	98016	12-31-17 *
Minnesota	NELAP	5	039-999-348	12-31-17 *
Minnesota (Petrofund)	State Program	1	3506	07-31-17 *
Nevada	State Program	9	OH-000482008A	07-31-18
New Jersey	NELAP	2	OH001	06-30-18
New York	NELAP	2	10975	03-31-18
Ohio VAP	State Program	5	CL0024	09-14-17 *
Oregon	NELAP	10	4062	02-23-18
Pennsylvania	NELAP	3	68-00340	08-31-17 *
Texas	NELAP	6	T104704517-15-5	08-31-18
USDA	Federal		P330-16-00404	12-28-19
Virginia	NELAP	3	460175	09-14-17 *
Washington	State Program	10	C971	01-12-18 *
West Virginia DEP	State Program	3	210	12-31-17 *
Wisconsin	State Program	5	999518190	08-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

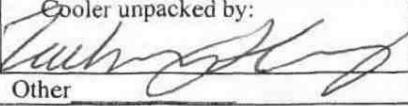
TestAmerica Canton

1.1|C1.1

GHD 6400 Shafer Court - Suite 400 Rosemont, Illinois, 60018 773 380 9933 phone WWW.GHD.COM			SHIPPED TO (Laboratory Name): <i>TEST AMERICA - NORTH CANTON</i>	
			REFERENCE NUMBER: <i>30409</i>	
CHAIN-OF-CUSTODY RECORD				
SAMPLER'S SIGNATURE: <i>Jeff Kolo</i>	PRINTED NAME: <i>Jeff Kolozziejski</i>			
SEQ. No.	DATE	TIME	SAMPLE IDENTIFICATION No.	SAMPLE MATRIX
				No. OF CONTAINERS
				PARAMETERS
				<i>SELECT VOCs L,L-DIOXANE</i>
				REMARKS <i>(MS/MSD)</i>
8/17/17	1150	GW-081717-AJ-01	WATER	6
	1215	-JK-02		6
	1350	-AJ-03		6
	1520	-AJ-04		6
8/18/17	0910	GW-081817-AJ-05		6
	0920	06		18
	0930	07		6
	0945	08		6
	1050	09		6
	1250	10		6
	1300	11		6
	1410	12		6
	1530	13		6
	1720	14		2
TOTAL NUMBER OF CONTAINERS				96
RELINQUISHED BY: <i>① Adam Janik TRC</i>			DATE: 8/18/17	RECEIVED BY:
			TIME: 1100	
RELINQUISHED BY: <i>②</i>			DATE:	RECEIVED BY:
			TIME:	
RELINQUISHED BY: <i>③</i>			DATE:	RECEIVED BY:
			TIME:	
METHOD OF SHIPMENT: <i>FED EX</i>				
White		-Fully Executed Copy		
Yellow		-Receiving Laboratory Copy		
Pink		-Shipper Copy		
Goldenrod		-Sampler Copy		
SAMPLE TEAM: <i>J. Kolozziejski</i>			RECEIVED FOR LABORATORY BY: <i>Tony Jones</i>	
<i>Adam Janik</i>			DATE: 8/19/17 TIME: 945	
9250				

**TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility**

Login # : 83935

Client <u>GHD</u>	Site Name	Cooler unpacked by: 
Cooler Received on <u>8/19/17</u>	Opened on <u>8/19/17</u>	
FedEx: 1 st Grd <input checked="" type="checkbox"/> Exp <input type="checkbox"/> UPS <input type="checkbox"/> FAS <input type="checkbox"/> Clipper	Client Drop Off <input type="checkbox"/> TestAmerica Courier <input type="checkbox"/> Other	
Receipt After-hours: Drop-off Date/Time		
TestAmerica Cooler #	Foam Box <input checked="" type="checkbox"/> Client Cooler <input type="checkbox"/> Box <input type="checkbox"/> Other _____	
Packing material used: <input checked="" type="checkbox"/> Bubble Wrap <input type="checkbox"/> Foam <input checked="" type="checkbox"/> Plastic Bag <input type="checkbox"/> None <input type="checkbox"/> Other _____		
COOLANT: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> Water <input type="checkbox"/> None		
1. Cooler temperature upon receipt <input type="checkbox"/> See Multiple Cooler Form		
IR GUN# IR-8 (CF -0.4 °C) Observed Cooler Temp. <u> </u> °C	Corrected Cooler Temp. <u> </u> °C	
IR GUN #36 (CF +0°C) Observed Cooler Temp. <u> </u> °C	Corrected Cooler Temp. <u> </u> °C	
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity <u> </u> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
-Were custody seals on the outside of the cooler(s) signed & dated? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA		
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
3. Shippers' packing slip attached to the cooler(s)? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
4. Did custody papers accompany the sample(s)? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
5. Were the custody papers relinquished & signed in the appropriate place? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
7. Did all bottles arrive in good condition (Unbroken)? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
8. Could all bottle labels be reconciled with the COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
9. Were correct bottle(s) used for the test(s) indicated? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
10. Sufficient quantity received to perform indicated analyses? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
11. Are these work share samples? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, Questions 11-15 have been checked at the originating laboratory.		
11. Were sample(s) at the correct pH upon receipt? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA pH Strip Lot# <u>HC697954</u>		
12. Were VOAs on the COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
13. Were air bubbles >6 mm in any VOA vials?  Larger than this. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA		
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # <u>B71280V3</u> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
15. Was a LL Hg or Me Hg trip blank present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____		
Concerning _____		

16. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

17. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
 Sample(s) _____ were received in a broken container.
 Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

18. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
 Time preserved: _____ Preservative(s) added/Lot number(s): _____

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-83984-1

Client Project/Site: 30409, Ellsworth Industrial Park

For:

GHD Services Inc.

1801 Old Highway 8 NW

Suite 114

St. Paul, Minnesota 55112

Attn: Mr. Grant Anderson

Denise Heckler

Authorized for release by:

8/28/2017 2:20:41 PM

Denise Heckler, Project Manager II

(330)966-9477

denise.heckler@testamericainc.com

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Expert

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www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: GHD Services Inc.
Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83984-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: GHD Services Inc.
Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83984-1

Job ID: 240-83984-1

Laboratory: TestAmerica Canton

Narrative

Job Narrative 240-83984-1

Comments

No additional comments.

Receipt

The samples were received on 8/22/2017 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.2° C.

GC/MS VOA

Method(s) 8260B: The continuing calibration verification (CCV) associated with batch 292504 recovered above the upper control limit for Vinyl Chloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 8260B: The following sample was submitted for volatile analysis with insufficient preservation ($pH > 2$): GW-082117-AJ-16 (240-83984-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83984-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8260B SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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Sample Summary

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83984-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-83984-1	GW-082117-AJ-15	Water	08/21/17 09:00	08/22/17 09:20
240-83984-2	GW-082117-AJ-16	Water	08/21/17 09:10	08/22/17 09:20
240-83984-3	GW-082117-AJ-17	Water	08/21/17 10:30	08/22/17 09:20
240-83984-4	GW-082117-AJ-18	Water	08/21/17 12:30	08/22/17 09:20
240-83984-5	GW-082117-AJ-20	Water	08/21/17 14:00	08/22/17 09:20
240-83984-6	GW-082117-AJ-21	Water	08/21/17 14:50	08/22/17 09:20
240-83984-7	TRIP BLANK	Water	08/21/17 00:00	08/22/17 09:20

Detection Summary

Client: GHD Services Inc.
Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83984-1

Client Sample ID: GW-082117-AJ-15

Lab Sample ID: 240-83984-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.80	J	1.0	0.23	ug/L	1		8260B	Total/NA

Client Sample ID: GW-082117-AJ-16

Lab Sample ID: 240-83984-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.36	J	1.0	0.23	ug/L	1		8260B	Total/NA

Client Sample ID: GW-082117-AJ-17

Lab Sample ID: 240-83984-3

No Detections.

Client Sample ID: GW-082117-AJ-18

Lab Sample ID: 240-83984-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.60	J	2.0	0.24	ug/L	1		8260B SIM	Total/NA
1,1,1-Trichloroethane	2.4		1.0	0.23	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	0.81	J	1.0	0.25	ug/L	1		8260B	Total/NA
Trichloroethylene	0.46	J	1.0	0.33	ug/L	1		8260B	Total/NA

Client Sample ID: GW-082117-AJ-20

Lab Sample ID: 240-83984-5

No Detections.

Client Sample ID: GW-082117-AJ-21

Lab Sample ID: 240-83984-6

No Detections.

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-83984-7

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83984-1

Client Sample ID: GW-082117-AJ-15

Lab Sample ID: 240-83984-1

Date Collected: 08/21/17 09:00

Matrix: Water

Date Received: 08/22/17 09:20

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/23/17 12:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		63 - 125					08/23/17 12:44	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.80	J	1.0	0.23	ug/L			08/25/17 14:39	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			08/25/17 14:39	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/25/17 14:39	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/25/17 14:39	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/25/17 14:39	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/25/17 14:39	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			08/25/17 14:39	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/25/17 14:39	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			08/25/17 14:39	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/25/17 14:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		61 - 138					08/25/17 14:39	1
4-Bromofluorobenzene (Surr)	79		69 - 120					08/25/17 14:39	1
Toluene-d8 (Surr)	115		73 - 120					08/25/17 14:39	1
Dibromofluoromethane (Surr)	108		69 - 124					08/25/17 14:39	1

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83984-1

Client Sample ID: GW-082117-AJ-16

Date Collected: 08/21/17 09:10

Date Received: 08/22/17 09:20

Lab Sample ID: 240-83984-2

Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/23/17 13:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	81		63 - 125					08/23/17 13:09	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.36	J	1.0	0.23	ug/L			08/25/17 15:02	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			08/25/17 15:02	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/25/17 15:02	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/25/17 15:02	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/25/17 15:02	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/25/17 15:02	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			08/25/17 15:02	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/25/17 15:02	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			08/25/17 15:02	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/25/17 15:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		61 - 138					08/25/17 15:02	1
4-Bromofluorobenzene (Surr)	81		69 - 120					08/25/17 15:02	1
Toluene-d8 (Surr)	115		73 - 120					08/25/17 15:02	1
Dibromofluoromethane (Surr)	105		69 - 124					08/25/17 15:02	1

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83984-1

Client Sample ID: GW-082117-AJ-17

Date Collected: 08/21/17 10:30

Date Received: 08/22/17 09:20

Lab Sample ID: 240-83984-3

Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/23/17 13:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		63 - 125					08/23/17 13:34	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			08/25/17 15:24	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			08/25/17 15:24	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/25/17 15:24	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/25/17 15:24	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/25/17 15:24	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/25/17 15:24	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			08/25/17 15:24	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/25/17 15:24	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			08/25/17 15:24	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/25/17 15:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		61 - 138					08/25/17 15:24	1
4-Bromofluorobenzene (Surr)	78		69 - 120					08/25/17 15:24	1
Toluene-d8 (Surr)	114		73 - 120					08/25/17 15:24	1
Dibromofluoromethane (Surr)	106		69 - 124					08/25/17 15:24	1

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83984-1

Client Sample ID: GW-082117-AJ-18

Date Collected: 08/21/17 12:30

Date Received: 08/22/17 09:20

Lab Sample ID: 240-83984-4

Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.60	J	2.0	0.24	ug/L			08/23/17 13:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		63 - 125					08/23/17 13:59	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	2.4		1.0	0.23	ug/L			08/25/17 15:47	1
1,1-Dichloroethane	0.81	J	1.0	0.25	ug/L			08/25/17 15:47	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/25/17 15:47	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/25/17 15:47	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/25/17 15:47	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/25/17 15:47	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			08/25/17 15:47	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/25/17 15:47	1
Trichloroethene	0.46	J	1.0	0.33	ug/L			08/25/17 15:47	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/25/17 15:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		61 - 138					08/25/17 15:47	1
4-Bromofluorobenzene (Surr)	77		69 - 120					08/25/17 15:47	1
Toluene-d8 (Surr)	110		73 - 120					08/25/17 15:47	1
Dibromofluoromethane (Surr)	104		69 - 124					08/25/17 15:47	1

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83984-1

Client Sample ID: GW-082117-AJ-20

Date Collected: 08/21/17 14:00

Date Received: 08/22/17 09:20

Lab Sample ID: 240-83984-5

Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/23/17 14:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	73		63 - 125					08/23/17 14:24	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			08/25/17 16:09	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			08/25/17 16:09	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/25/17 16:09	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/25/17 16:09	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/25/17 16:09	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/25/17 16:09	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			08/25/17 16:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/25/17 16:09	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			08/25/17 16:09	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/25/17 16:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		61 - 138					08/25/17 16:09	1
4-Bromofluorobenzene (Surr)	76		69 - 120					08/25/17 16:09	1
Toluene-d8 (Surr)	112		73 - 120					08/25/17 16:09	1
Dibromofluoromethane (Surr)	105		69 - 124					08/25/17 16:09	1

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83984-1

Client Sample ID: GW-082117-AJ-21

Date Collected: 08/21/17 14:50

Date Received: 08/22/17 09:20

Lab Sample ID: 240-83984-6

Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U F2	2.0	0.24	ug/L			08/23/17 14:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		63 - 125					08/23/17 14:49	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			08/25/17 16:32	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			08/25/17 16:32	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/25/17 16:32	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/25/17 16:32	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/25/17 16:32	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/25/17 16:32	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			08/25/17 16:32	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/25/17 16:32	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			08/25/17 16:32	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/25/17 16:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		61 - 138					08/25/17 16:32	1
4-Bromofluorobenzene (Surr)	79		69 - 120					08/25/17 16:32	1
Toluene-d8 (Surr)	116		73 - 120					08/25/17 16:32	1
Dibromofluoromethane (Surr)	112		69 - 124					08/25/17 16:32	1

Client Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83984-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-83984-7

Matrix: Water

Date Collected: 08/21/17 00:00

Date Received: 08/22/17 09:20

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/23/17 12:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		63 - 125					08/23/17 12:19	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			08/25/17 16:54	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			08/25/17 16:54	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/25/17 16:54	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/25/17 16:54	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/25/17 16:54	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/25/17 16:54	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			08/25/17 16:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/25/17 16:54	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			08/25/17 16:54	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/25/17 16:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	115		61 - 138					08/25/17 16:54	1
4-Bromofluorobenzene (Surr)	81		69 - 120					08/25/17 16:54	1
Toluene-d8 (Surr)	118		73 - 120					08/25/17 16:54	1
Dibromofluoromethane (Surr)	112		69 - 124					08/25/17 16:54	1

Surrogate Summary

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83984-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (61-138)	BFB (69-120)	TOL (73-120)	DBFM (69-124)
240-83984-1	GW-082117-AJ-15	114	79	115	108
240-83984-2	GW-082117-AJ-16	110	81	115	105
240-83984-3	GW-082117-AJ-17	106	78	114	106
240-83984-4	GW-082117-AJ-18	106	77	110	104
240-83984-5	GW-082117-AJ-20	105	76	112	105
240-83984-6	GW-082117-AJ-21	114	79	116	112
240-83984-7	TRIP BLANK	115	81	118	112
LCS 240-292504/4	Lab Control Sample	108	86	119	104
MB 240-292504/6	Method Blank	102	77	103	101

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (63-125)			
240-83984-1	GW-082117-AJ-15	84			
240-83984-2	GW-082117-AJ-16	81			
240-83984-3	GW-082117-AJ-17	87			
240-83984-4	GW-082117-AJ-18	89			
240-83984-5	GW-082117-AJ-20	73			
240-83984-6	GW-082117-AJ-21	83			
240-83984-6 MS	GW-082117-AJ-21	91			
240-83984-6 MSD	GW-082117-AJ-21	81			
240-83984-7	TRIP BLANK	77			
LCS 240-292190/4	Lab Control Sample	82			
MB 240-292190/5	Method Blank	75			

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

QC Sample Results

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83984-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-292504/6

Matrix: Water

Analysis Batch: 292504

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			08/25/17 12:24	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			08/25/17 12:24	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			08/25/17 12:24	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			08/25/17 12:24	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			08/25/17 12:24	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/25/17 12:24	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			08/25/17 12:24	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			08/25/17 12:24	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			08/25/17 12:24	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/25/17 12:24	1

MB MB

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	102		61 - 138		08/25/17 12:24	1
4-Bromofluorobenzene (Surr)	77		69 - 120		08/25/17 12:24	1
Toluene-d8 (Surr)	103		73 - 120		08/25/17 12:24	1
Dibromofluoromethane (Surr)	101		69 - 124		08/25/17 12:24	1

Lab Sample ID: LCS 240-292504/4

Matrix: Water

Analysis Batch: 292504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
	Added								
1,1,1-Trichloroethane	10.0		10.6		ug/L		106	64 - 147	
1,1-Dichloroethane	10.0		11.3		ug/L		113	74 - 120	
1,1-Dichloroethene	10.0		12.3		ug/L		123	65 - 127	
1,2-Dichloroethane	10.0		10.8		ug/L		108	68 - 133	
Carbon tetrachloride	10.0		9.08		ug/L		91	55 - 171	
cis-1,2-Dichloroethene	10.0		10.6		ug/L		106	77 - 120	
Tetrachloroethene	10.0		10.9		ug/L		109	80 - 122	
trans-1,2-Dichloroethene	10.0		10.7		ug/L		107	74 - 124	
Trichloroethene	10.0		10.5		ug/L		105	76 - 124	
Vinyl chloride	10.0		12.4		ug/L		124	65 - 124	

LCS LCS

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	108		61 - 138
4-Bromofluorobenzene (Surr)	86		69 - 120
Toluene-d8 (Surr)	119		73 - 120
Dibromofluoromethane (Surr)	104		69 - 124

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-292190/5

Matrix: Water

Analysis Batch: 292190

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			08/23/17 11:29	1

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83984-1

Method: 8260B SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-292190/5

Matrix: Water

Analysis Batch: 292190

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)			75		63 - 125		08/23/17 11:29	1

Lab Sample ID: LCS 240-292190/4

Matrix: Water

Analysis Batch: 292190

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spiked	LCS	LCS	Unit	D	%Rec.	Limits
	Added	Result	Qualifier				
1,4-Dioxane		10.0	9.61	ug/L		96	59 - 131
Surrogate	%Recovery	LCS	LCS				
1,2-Dichloroethane-d4 (Surr)	82						

Lab Sample ID: 240-83984-6 MS

Matrix: Water

Analysis Batch: 292190

Client Sample ID: GW-082117-AJ-21
Prep Type: Total/NA

Analyte	Sample	Sample	Spiked	MS	MS	Unit	D	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier				
1,4-Dioxane	2.0	U F2		10.0		11.6	ug/L	116	52 - 129
Surrogate	%Recovery	MS	MS						
1,2-Dichloroethane-d4 (Surr)	91								

Lab Sample ID: 240-83984-6 MSD

Matrix: Water

Analysis Batch: 292190

Client Sample ID: GW-082117-AJ-21
Prep Type: Total/NA

Analyte	Sample	Sample	Spiked	MSD	MSD	Unit	D	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
1,4-Dioxane	2.0	U F2		10.0		9.72	ug/L	97	52 - 129	18	13
Surrogate	%Recovery	MSD	MSD								
1,2-Dichloroethane-d4 (Surr)	81										

QC Association Summary

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83984-1

GC/MS VOA

Analysis Batch: 292190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-83984-1	GW-082117-AJ-15	Total/NA	Water	8260B SIM	1
240-83984-2	GW-082117-AJ-16	Total/NA	Water	8260B SIM	2
240-83984-3	GW-082117-AJ-17	Total/NA	Water	8260B SIM	3
240-83984-4	GW-082117-AJ-18	Total/NA	Water	8260B SIM	4
240-83984-5	GW-082117-AJ-20	Total/NA	Water	8260B SIM	5
240-83984-6	GW-082117-AJ-21	Total/NA	Water	8260B SIM	6
240-83984-7	TRIP BLANK	Total/NA	Water	8260B SIM	7
MB 240-292190/5	Method Blank	Total/NA	Water	8260B SIM	8
LCS 240-292190/4	Lab Control Sample	Total/NA	Water	8260B SIM	9
240-83984-6 MS	GW-082117-AJ-21	Total/NA	Water	8260B SIM	10
240-83984-6 MSD	GW-082117-AJ-21	Total/NA	Water	8260B SIM	

Analysis Batch: 292504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-83984-1	GW-082117-AJ-15	Total/NA	Water	8260B	11
240-83984-2	GW-082117-AJ-16	Total/NA	Water	8260B	12
240-83984-3	GW-082117-AJ-17	Total/NA	Water	8260B	
240-83984-4	GW-082117-AJ-18	Total/NA	Water	8260B	13
240-83984-5	GW-082117-AJ-20	Total/NA	Water	8260B	
240-83984-6	GW-082117-AJ-21	Total/NA	Water	8260B	14
240-83984-7	TRIP BLANK	Total/NA	Water	8260B	
MB 240-292504/6	Method Blank	Total/NA	Water	8260B	
LCS 240-292504/4	Lab Control Sample	Total/NA	Water	8260B	

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83984-1

Client Sample ID: GW-082117-AJ-15

Date Collected: 08/21/17 09:00

Date Received: 08/22/17 09:20

Lab Sample ID: 240-83984-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	292504	08/25/17 14:39	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	292190	08/23/17 12:44	SAM	TAL CAN

Client Sample ID: GW-082117-AJ-16

Date Collected: 08/21/17 09:10

Date Received: 08/22/17 09:20

Lab Sample ID: 240-83984-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	292504	08/25/17 15:02	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	292190	08/23/17 13:09	SAM	TAL CAN

Client Sample ID: GW-082117-AJ-17

Date Collected: 08/21/17 10:30

Date Received: 08/22/17 09:20

Lab Sample ID: 240-83984-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	292504	08/25/17 15:24	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	292190	08/23/17 13:34	SAM	TAL CAN

Client Sample ID: GW-082117-AJ-18

Date Collected: 08/21/17 12:30

Date Received: 08/22/17 09:20

Lab Sample ID: 240-83984-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	292504	08/25/17 15:47	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	292190	08/23/17 13:59	SAM	TAL CAN

Client Sample ID: GW-082117-AJ-20

Date Collected: 08/21/17 14:00

Date Received: 08/22/17 09:20

Lab Sample ID: 240-83984-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	292504	08/25/17 16:09	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	292190	08/23/17 14:24	SAM	TAL CAN

Client Sample ID: GW-082117-AJ-21

Date Collected: 08/21/17 14:50

Date Received: 08/22/17 09:20

Lab Sample ID: 240-83984-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	292504	08/25/17 16:32	LEE	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83984-1

Client Sample ID: GW-082117-AJ-21

Date Collected: 08/21/17 14:50

Date Received: 08/22/17 09:20

Lab Sample ID: 240-83984-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B SIM		1	292190	08/23/17 14:49	SAM	TAL CAN

Client Sample ID: TRIP BLANK

Date Collected: 08/21/17 00:00

Date Received: 08/22/17 09:20

Lab Sample ID: 240-83984-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	292504	08/25/17 16:54	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	292190	08/23/17 12:19	SAM	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Accreditation/Certification Summary

Client: GHD Services Inc.

Project/Site: 30409, Ellsworth Industrial Park

TestAmerica Job ID: 240-83984-1

Laboratory: TestAmerica Canton

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	200004	07-31-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260B SIM		Water	1,4-Dioxane

1-211.2

GHD 6400 Shafer Court - Suite 400 Rosemont, Illinois, 60018 773 380 9933 phone WWW.GHD.COM			SHIPPED TO (Laboratory Name): <i>Test America - North Canton</i>								
			REFERENCE NUMBER: <i>30409</i>		PROJECT NAME: <i>Refined</i>						
CHAIN-OF-CUSTODY RECORD			SAMPLER'S SIGNATURE: <i>Adam Jumake</i>		PRINTED NAME: <i>Adam Jumake</i>		PARAMETERS		REMARKS		
SEQ. No.	DATE	TIME	SAMPLE IDENTIFICATION No.	SAMPLE MATRIX	No. OF CONTAINERS	<i>Fejer Vols 1.7-Dilute</i>  240-83984 Chain of Custody					
					No. OF						
	8/21/17	0900	GW-082117-AJ-15	water	6	XX					
		0910	1 - 16		1						
		1030	- 17								
		1130	- 18								
			- 19								
		1400	- 20								
		1450	- 21								
	-	-	Trip Blank		2	↓↓↓					
TOTAL NUMBER OF CONTAINERS											
RELINQUISHED BY: <i>① Adam Jumake Fejer TRC</i>			DATE: <i>8/21/2017</i>	RECEIVED BY:				DATE:			
			TIME: <i>1630</i>	②				TIME:			
RELINQUISHED BY: <i>②</i>			DATE:	RECEIVED BY:				DATE:			
			TIME:	③				TIME:			
RELINQUISHED BY: <i>③</i>			DATE:	RECEIVED BY:				DATE:			
			TIME:	④				TIME:			
METHOD OF SHIPMENT: <i>Fejer</i>			TRACKING No. <i>9240</i>								
White -Fully Executed Copy Yellow -Receiving Laboratory Copy Pink -Shipper Copy Goldenrod -Sampler Copy			SAMPLE TEAM: <i>Adam Jumake</i>			RECEIVED FOR LABORATORY BY: <i>B. May</i> DATE <i>8/22/17</i> TIME: <i>9:20</i>					
11034001-00(PRES001)GN-CO001											

**TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility**

Login # : 5b984

Client SHD Site Name _____
Cooler Received on 8/22/17 Opened on 8/22/17 Cooler unpacked by: B. May
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler #	Foam Box	Client Cooler	Box	Other
Packing material used:	Bubble Wrap	Foam	Plastic Bag	None
COOLANT:	Wet Ice	Blue Ice	Dry Ice	Water

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN# IR-8 (CF -0.4 °C) Observed Cooler Temp. -1.2 °C Corrected Cooler Temp. -2 °C
IR GUN #36 (CF +0°C) Observed Cooler Temp. 1.2 °C Corrected Cooler Temp. -2 °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity _____
 -Were custody seals on the outside of the cooler(s) signed & dated?
 -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?
 3. Shippers' packing slip attached to the cooler(s)?
 4. Did custody papers accompany the sample(s)?
 5. Were the custody papers relinquished & signed in the appropriate place?
 6. Was/were the person(s) who collected the samples clearly identified on the COC?
 7. Did all bottles arrive in good condition (Unbroken)?
 8. Could all bottle labels be reconciled with the COC?
 9. Were correct bottle(s) used for the test(s) indicated?
 10. Sufficient quantity received to perform indicated analyses?

11. Are these work share samples?
If yes, Questions 11-15 have been checked at the originating laboratory.

11. Were sample(s) at the correct pH upon receipt? Yes No NA NH Strip Lot# HC697954
12. Were VOAs on the COC? Yes No NA

13. Were air bubbles >6 mm in any VOA vials? Larger than this.

14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # B71280/VB

15. Was a LL Hg or Me Hg trip blank present? Yes No NA
Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

16. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

17. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

18. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

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